

October 20, 2005

**Indiana Water Quality Coalition Responses to IDEM's
Homework Assignments to the Antidegradation Workgroup**

For many years now, the Indiana Water Quality Coalition (the "Coalition") has been participating in rulemaking workgroup discussions and efforts to adopt antidegradation implementation procedures in Indiana. These rulemaking activities date back to the late 1990s, following adoption of the Great Lakes rules, when IDEM undertook certain triennial review activities and convened a Water Quality Advisory Group to address various water quality issues. The Coalition actively participated in that effort, including development and submission of position papers on all aspects of the antidegradation review process (February 2002). We also submitted detailed comments on IDEM's March 2003 first notice of rulemaking and March 2005 second notice of rulemaking. All of these submissions were made following enactment of SEA 431 (Public Law 140-2000), and reflect the mandates of that law.

As we have stated on many occasions, including during this most recent rulemaking workgroup effort, IDEM must make decisions on significant issues as this rulemaking develops. There are several key points that, depending on which policy decision the agency makes, will have a cascading effect on the rest of the rule. This in turn will affect how we and other stakeholders respond to subsequent information requests.

Therefore, we want to clearly reiterate our request that IDEM make interim decisions regarding the direction of the rulemaking. We believe that IDEM should be making interim decisions following completion of discussion of each issue by the workgroup. At the June 25 stakeholder meeting, the meeting participants collectively prioritized the issues, and agreed that the workgroup should discuss the issues in the following order of descending priority: applicability; exemptions; de minimis; water quality improvement projects; antidegradation demonstrations; and public notice/public comment. The workgroup has discussed applicability, exemptions, and de minimis; IDEM should make decisions on these topics before the workgroup moves to the next issue. Also, the agency should clearly explain the basis of its policy decisions, and begin to build the administrative record that will be essential to justifying the final rule to U.S. EPA and others that may seek review of the rule.

The homework assignments given by IDEM concerning this most recent iteration of workgroup discussions on the antidegradation rulemaking address many of the same topics on which the Coalition has provided comments during past efforts. Therefore, to the extent this new assignment requests information we have already provided, this submission will refer to our previous comments.

Assignment #1: Applicability

The Coalition supports an applicability provision that uses a brightline trigger of only conducting antidegradation review when a discharger is requesting a new or increased discharge *that requires a new or modified NPDES permit*. **Attachment 1** provides a detailed explanation of the Coalition's position on the applicability of the antidegradation rule. We presented and discussed this paper during the August 12, 2008 workgroup meeting.

Assignment #2: "Pollutant of Concern" Definition

The "pollutant of concern" definition must be sufficiently clear to adequately define the universe of pollutants to which the antidegradation implementation procedures apply. The definition should also limit review to a finite and reasonable set of pollutants so that dischargers are provided fair notice at the beginning of the process about which pollutants will be subject to review. The Coalition believes the definition should be modified as follows:

"Pollutant of concern" means a pollutant that is reasonably expected to be present in a discharge based on the source and nature of the discharge **and may reasonably be expected to affect the designated uses of the receiving water.**

Attachment 1 provides a detailed explanation of the Coalition's position on this issue.

Assignment #3: Exemptions

Full antidegradation review should only be required for projects that will result in a significant lowering of water quality. Activities that will only result in insignificant or temporary lowerings of water quality do not warrant the time and expense of detailed review. The Coalition supports the list of exemptions in the draft rule, and believes several others (as described below) should be added to the rule. A detailed explanation of the Coalition's position on exemptions is provided in our May 31, 2005 comments on IDEM's April 1, 2005 second notice of rulemaking (LSA #03-44), which are provided in **Attachment 3** (pages 33 – 36). We also provided comments on exemptions in our April 29, 2003 comments on IDEM's March 1, 2003 first notice of rulemaking (**Attachment 4**, pages 6 – 10) and our position paper to the Water Quality Advisory Group (**Attachment 5**).

Regarding the portion of the assignment as to whether there should be a justification, public notice/comment, and/or guidance on any of the exemptions, the Coalition does not believe there should be a separate process outside of the regular permitting application and public notice/comment requirements for any of the exemptions. Furthermore, several of the exemptions address day-to-day operations, and should not be subject to any notice or approval by IDEM. These include 327 IAC 2-1.3-4(b)(1), (2), (3), (4), (5), (8), (11) and (12). For example, the exemption for bypasses is meant to recognize that non-prohibited bypasses do not need to undergo antidegradation review, and do not require a permit modification. The goal of the antidegradation review process should be to comply with the antidegradation requirements without adding additional time to the permitting process. This is consistent with IDEM's goal of clear, consistent and speedy regulatory actions.

The Coalition also recommends that the rule contain provisions addressing several other activities:

General permits: The Coalition addressed its position on general permits in its May 31, 2005 comments (**Attachment 3**, pages 22 – 32), including a detailed analysis of why each general permit rule does not allow any individual activities or the cumulative impact of all activities to cause significant lowering of water quality. The Coalition believes that IDEM must clearly address antidegradation review of each general permit rule, so that it is clear that specific activities qualifying for a general permit do not need to go through individual antidegradation review. To date, IDEM has failed to explain how it will accomplish this objective. However, it is essential that IDEM address this issue so that Indiana may retain the integrity of the general permitting process. IDEM could address this issue through a number of methods, including opening up each general permit rule to make a finding that compliance with the rule meets the antidegradation standard; providing a detailed analysis of each general permit rule to be submitted as supporting justification when submitting the antidegradation rule to U.S. EPA for review and approval; and/or placing language in the applicability section of the antidegradation rule.

Air pollution controls: New or increased wastewater discharges necessary to achieve reductions in air emissions should be exempted from antidegradation review or subject to a streamlined antidegradation review process. **Attachment 6** provides additional explanation of and support for this position.

Variances: Discharges that have been granted variances should not also be required to submit an antidegradation demonstration because the application and review process for obtaining a variance is substantially the same as the antidegradation demonstration and review process. **Attachment 7** provides additional explanation of and support for this position.

Assignment #4: “Assimilative Capacity” Definition

The draft rule and all past versions of draft rules, as well as the current Great Lakes rules at 327 IAC 5-2-11.3 (high quality waters) and 327 IAC 5-2-11.7 (outstanding state resource waters) do not use the term “assimilative capacity.” Rather, these rules use and define the terms “unused loading capacity” and “total loading capacity” to define de minimis. The Coalition recommends that the current rulemaking continue to use the unused and total loading capacity terms that are clearly defined and understood by permittees and the agency. Additional information concerning these terms are provided in our response to Assignment #5 on de minimis.

Assignment #5: De Minimis

Senate Enrolled Act 431 (2000) requires the Water Pollution Control Board to adopt a rule for outstanding state resource waters that includes a de minimis quantity of additional pollutant load for which a new or increased permit limit is required and below which antidegradation implementation procedures do not apply. This de minimis concept should be applied to all high quality waters. Furthermore, the de minimis procedures should allow consideration of approved alternate mixing zones for all high quality waters, including OSRWs and EUWs. Finally, IDEM

should not rely on development of case-by-case DTBELs in support of this rule. It would be extremely time-consuming and of limited value in the application of antidegradation.

The Coalition's position on de minimis is provided in our May 31, 2005 comments (**Attachment 3**, pages 14 – 19). In addition to these comments on an appropriate de minimis and cumulative cap for all Tier 2 waters (including outstanding state resources waters), the Coalition also offers the following position on use of the final acute value ("FAV") in the de minimis determination.

Having de minimis above an FAV can be supported based on exposure. A goal of permit writers is to determine what effluent composition will protect aquatic organisms and human health. Exposure assessment includes an analysis of how much of the waterbody is subject to the exceedance of criteria, for how long, and how frequently. The first step is to evaluate the effluent plume dispersion. If mixing is not rapid and complete and if State standards allow a mixing zone, the wasteload allocation also must be based on a mixing zone analysis. As with the U.S. EPA "Technical Support Document on Water Quality-based Permit Limits for Toxics Control (TSD)" and state standards, ambient criteria to control acute toxicity to aquatic life may be met within a short distance of the outfall.

If mixing is rapid and complete, there are several calculations and models that can be used to assess exposure. Steady-state calculations and models can be used and assume that the effluent concentration is constant and that the duration and frequency with which criteria are exceeded can be reflected entirely by selecting a design flow in the receiving water of appropriate averaging period and frequency. In some cases, effluent mixing can be obtained within a matter of seconds. In cases where mixing is rapid, application of a Final Acute Criterion at the end of a pipe is not appropriate. In these situations, the Acute Aquatic Criterion is applied at the edge of an acute mixing zone.

The requirements of a wasteload allocation ("WLA") must be translated into a permit limit in the wastewater discharge permit. A WLA can be developed for 1) acute exposure with rapid mixing (in this case the Acute Aquatic Criterion applies at the edge of the mixing zone), 2) acute exposure assuming a default zone of initial dilution (Final Acute Value is met at the end of pipe, if mixing is not rapid), and 3) for protection of chronic effects after effluent mixing (Chronic Aquatic Criterion is met in an allowable portion of a stream). Each of the three WLAs reflects different assumptions and means of expressing effluent quality and can be justified.

In closing, the Coalition believes that a constructive antidegradation rule will contain reasonable triggers for review, appropriate exclusions from full review, and a sensible process for obtaining approvals. We are concerned that the rule as currently drafted does not achieve these objectives, and these responses provide our recommendations regarding appropriate revisions to the draft rule. We also urge IDEM to decide and clearly express its decisions at the time that the workgroup discusses each of the key issues concerning the antidegradation review process.